



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,839	12/27/2001	Christopher L. Hamlin	01-827	9625

24319 7590 01/28/2004

LSI LOGIC CORPORATION
1621 BARBER LANE
MS: D-106 LEGAL
MILPITAS, CA 95035

EXAMINER

THOMPSON, ANNETTE M

ART UNIT	PAPER NUMBER
----------	--------------

2825

DATE MAILED: 01/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/034,839

Applicant(s)

HAMLIN, CHRISTOPHER L.

Examiner

A. M. Thompson

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,3,5,7,11,12,14,18 and 19 is/are allowed.
- 6) ☒ Claim(s) 1,4,6,8-10,13,15-17 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Applicant's Amendment and Response has been reviewed but is not considered completely persuasive. The applicable rejections and objection of the prior office action are herein incorporated. Claims 1-20 are pending.

Specification

1. The disclosure is objected to because of the following informalities: At page 11, also insert the applicable patent number, e.g. now, U.S. Patent XXX.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Rejection of claims 1, 4, 6, 8-10, and 15-17

3. Claims 1, 4, 6, 8-10, and 15-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Hemmi et al. (Hemmi), US. Patent 5,615,124. Hemmi discloses an autonomous evolution type hardware design system.
4. Pursuant to claim 1 which recites a system suitable for providing integrated circuit design (Fig. 1; col. 3, ll. 10-14), comprising a memory (col. 3, ll. 43-48) storing a first set of instructions and a second set of instructions; and a processor (col. 3, ll. 48-

Art Unit: 2825

50; see also col. 3, ll. 58-63, the hardware specification interpretation unit) communicatively coupled to the memory, the processor suitable for performing the first set of instructions and the second set of instructions, wherein the first set of instructions is suitable for configuring a processor to provide an integrated circuit development environment in which a support methodology for an integrated circuit is created and the second set of instructions is suitable for configuring a processor to provide tools for implementing a platform architecture of an integrated circuit in which the platform architecture supplies a structure of the integrated circuit (col. 4, ll. 8-46), the first set of instructions and the second set of instructions linked through at least one formalism so that at least one of an action taken utilizing the platform architecture influences the support methodology and an action taken utilizing the support methodology influences the platform architecture (col. 2, ll. 40-50).

5. Pursuant to claim 4, wherein the formalism includes a genetic algorithm (col. 3, ll. 37-39; col. 6, ll. 21-47).

6. Pursuant to claim 6, wherein the formalism is utilized to implement coevolutionary relationship (col. 2, ll. 3-21).

7. Pursuant to claim 8, which recites a method of designing an integrated circuit (col. 2, ll. 3-9) comprising receiving functional specifications and constraints of an integrated circuit (col. 3, ll. 10-16); and interacting with a system configured to provide an environment for deriving a support methodology for an integrated circuit having the received functional specifications, wherein the interaction with the support methodology

for the integrated circuit influences an environment for designing a platform architecture for an integrated circuit (col. 4, ll. 8-25).

8. Pursuant to claim 9, wherein interacting includes manipulation by a user of a graphical user interface as implemented on an information handling system (col. 1, ll. 21-31; the IO unit, col. 3, line 50 to col. 4, line 2).

9. Pursuant to claim 10 wherein the environment for designing a platform architecture is provided by an information handling system (the IO unit, col. 3, line 50 to col. 4, line 2) including a display of user-manipulable information.

10. Pursuant to claim 15, which recites a method of designing an integrated circuit(col. 2, ll. 3-9) comprising receiving functional specifications and constraints of an integrated circuit (col. 3, ll. 10-16); and interacting with a system configured to provide an environment for deriving a platform architecture for an integrated circuit having the received functional specifications, wherein the interaction with the support methodology for the integrated circuit influences an environment for designing a support methodology for an integrated circuit (col. 4, ll. 8-25).

11. Pursuant to claim 16, wherein interacting includes manipulation by a user of a graphical user interface as implemented on an information handling system (col. 1, ll. 21-31; the IO unit, col. 3, line 50 to col. 4, line 2).

12. Pursuant to claim 17 wherein the environment for designing a support methodology is provided by an information handling system (the IO unit, col. 3, line 50 to col. 4, line 2) including a display of user-manipulable information.

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Rejection of claims 8, 13, 15, and 20

14. Claims 8, 13, 15, 20 are rejected under 35 U.S.C. 102(b) as being anticipated by the Xin Yao paper (the Yao paper) entitled Following the Path of Evolvable Hardware.

15. Pursuant to claims 8 and 15 the Yao paper discloses a method of designing an integrated circuit (Figure 1) comprising receiving functional specifications and constraints (Figure 1, top box), and interacting with a system configure to provide an environment for deriving a platform architecture or support methodology for an integrated circuit having the received functional specifications wherein the interaction with the platform architecture or support methodology influence a design environment (see Figure 1 wherein the arrows are illustrative of interaction and influence).

16. Pursuant to claims 13 and 20, wherein the environment is influenced through the use of a formalism wherein the formalism is utilized to implement a coevolutionary relationship (Figure 1 illustrate the coevolutionary relationship).

Remarks

17. Applicant asserts that Hemmi fails to teach or suggest a platform architecture and for this reason Applicant's claims are all patentable over the prior art of record. However this argument is fairly specious. First of all, Applicant's specification does not provide a specific definition for the term *platform architecture*. Applicant's specification

merely states in paragraph [0007] that the platform architecture "supplies a structure of the integrated circuit." Both the disclosures of Hemmi and the Yao paper are sufficient to satisfy this loose and broad definition. Therefore, the rejection of the claims may not be withdrawn on that basis. Accordingly, the rejection outlined herein, *supra*, is maintained.

Conclusion

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

19. Any inquiry concerning this communication or earlier communications should be directed to Examiner A.M. Thompson whose telephone number is (571) 272-1909. The Examiner can usually be reached Monday thru Friday from 8:00 a.m. to 4:30 p.m.. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Matthew S. Smith, can be reached on (571) 272-1907.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1562 or the Customer Service Center whose telephone number is (571) 272-1750.

20. Responses to this action should be mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

or faxed to:

(703) 872-9306, (for all **OFFICIAL** communications intended for entry)



A. M. THOMPSON
Master's Level Patent Examiner
Technology Center 2800